

Amendments to the Specification:

Please replace the paragraph beginning on page 4, line 5 with the following rewritten paragraph:

Figs. 1A and 1C ~~are is-a~~ diagrammatic views of an embodiment of the present invention.

Please replace the paragraph beginning on page 4, line 11 with the following rewritten paragraph:

Figs. 3a and 3b ~~are is-a~~ graphical views showing excitation/emission wavelength overlap.

Please replace the paragraph beginning on page 4, line 15 with the following rewritten paragraph:

Referring now to Figs. 1A through 1C, there is shown an embodiment of the present invention. As shown, an object plane 10 of a fluorescent image is imaged by wide angle lens 12 onto an electronic sensor 14 of imaging system 16.

Please replace the paragraph beginning on page 5, line 18 with the following rewritten paragraph:

Further understanding and design principles of the invention can be conveyed by analytical modeling. The point of the analysis is to estimate the overlap between excitation light and emission bandpass. The source of the blue-shift is incident angle, and is about 0.5nm per degree of off-normal incidence as measured for high-quality dichroic filters. A wide-angle image system includes the light incident at 25 degrees or more off normal, resulting in an emitter cut-on blue shift of 13 nm. For the sensitive fluorescent assay, exciter-emitter filter pairs will be used that will be typically spaced about 60 nm apart in central wavelength, and each filter will have a 30-35 nm bandpass (FWHM, full width at half maximum). A high-quality dichroic bandpass filter having a 35 nm FWHM translates to greater than a 50 nm bandpass at 0.001 maximum (accumulated experimental data). For sensitive fluorescent assays, assurance of a $>10^{-6}$ suppression of excitation light in the emitter bandpass is essential, and is obtained

by assuring a domain wavelength having >0.001 attenuation for both exciter cut-off and emitter cut-on. The graph in Figure 3 (right) 3b shows that at a fractional transmission of 0.001, an approximate 5 nm domain exists between exciter cut-off and emitter cut-on for normal incidence. However, a 13 nm blue-shift in the emitter violates the criterion, implying that the widest angles of view will permit significant exciter light to pass through the emitter filter. Interposing an absorbing filter (modeled after a typical Wratten high-pass) having an OD of >2 at the 0.001 cut-off level of the exciter suffices to just meet the 10^{-6} criterion of attenuation.

Please replace the paragraph beginning on page 6, line 23 with the following rewritten paragraph:

Referring to Fig-3 Figs. 3a and 3b, there is shown a graphical presentation of fractional transmission as a function of wavelength for excitation and emission filters used for fluorescent measurement. The wavelength scale is given in nanometers from the central wavelength of the emitter filter. Exciter (EX) and emitter (EM) filter central wavelengths are displaced by 60 nm; the exciter filter is 30 nm FWHM and the emitter is 35 nm FWHM. The maximum transmission of exciter and emitter filters is about 0.8 fractional transmission in reality. The data presented is modeled according to experimental measures of filter properties. The high-pass absorbing filter represented is according to a typical Wratten filter. The right-hand graph is simply an expanded scale of the left, and demonstrates best the overlap between the exciter cut-off (frTransEX) and the blue-shifted emitter cut-on (frTransBluEM). At a transmission of 0.001, a gap of about 5 nm separates the exciter cut-off and the normal emitter cut-on (frTransEM). The absorbing filter has a fractional transmission of <0.01 at the 0.001 level of exciter cut-off, and is more than sufficient to suppress the relevant overlap represented by the product frTransBluEM*Wr.